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Strategic Planning for the United States Army Personnel Function

William M. Hix, Ronald E. Sortor

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Strategic Planning for the United States Army Personnel Function

William M. Hix, Ronald E. Sortor

Prepared for the
United States Army

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PREFACE

In the context of unprecedented changes in the planning environment the U.S. Army now faces, the Army's Office of the Deputy Chief of Staff for Personnel asked RAND to develop a process within which it might conduct strategic planning. This report fulfills that request by proposing that the Army adapt a process used in the private sector to its unique planning needs.

The study was prepared in the Manpower, Training, and Performance Program of RAND's Arroyo Center. It is sponsored by Brigadier General Theodore G. Stroup, Jr., the Director of Military Personnel Management, Office of the Deputy Chief of Staff for Personnel, Department of the Army.

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SUMMARY

This report proposes a strategic planning process for use by Army personnel planners. The overall purpose of the project is to review and evaluate the applicability of strategic planning concepts used in private industry to the Army and to provide recommendations for improving the ability of the Army to effectively plan for a rapidly changing and uncertain future.

During the past 20 years, the Department of Defense has had the luxury of planning in a relatively stable environment of alliances, threat, force levels, and deployment policies. There has thus been little incentive for defense planners to examine vital defense interests in the context of broadly different, but plausible, environments that might dictate substantially different U.S. defense postures.

Similarly, within the Department of Defense, personnel planners have enjoyed a relative constancy of force levels, political support for the all-volunteer force, and resource levels adequate to man the force year after year with high-quality servicemembers.

In contrast, during the same period, large U.S. companies have operated in an increasingly uncertain environment resulting from increasing global competition, changing government regulation, and other factors that contribute to the volatility of their environment. In response, many have adopted sophisticated techniques for dealing with uncertain futures.

Events of 1990 are changing the nature of the Soviet threat and the face of Europe to include the very nature of NATO and the existence of the Warsaw Pact. Hence, defense planners must begin to deal with ranges of potential futures, each with perhaps different implications for force structures and mission requirements. They may no longer plan on the basis of a single best estimate of a threat dominated by the Soviet Union. Instead, they need to look at the implications of uncertain threats, changing national and defense interests, alternative future environments, how to shape the environments, and how to hedge against the attendant uncertainty in both defense interests and future world conditions. Personnel planners, because of the permanence and lasting effects of their decisions, should be among the first defense planners to embrace new planning concepts.

We selected as our starting point a strategic planning process, developed for private industry, that deals with uncertain futures. The process consists of three steps:

- Defining what the organization wants to accomplish—its long-range strategic interests.
- Defining the future environment within which the organization will operate. This includes determining what is known with some certainty about the future environment and what elements are uncertain.
- Developing an overall strategy for operating in the future and for dealing with the uncertainties about the future.

An analysis of the Army long-range planning system—*The Army Long-Range Planning Guidance* and *The Army Long-Range Personnel Plan*—reveals significant departures from the private sector model. The differences for the most part indicate a failure on the part of the Army process explicitly to consider future uncertainty and to develop and evaluate strategy alternatives to deal with that uncertainty.

This report recommends that the Army adopt a process patterned on the private industry model but with adaptations that we believe make it better suited to the Army's personnel planning needs. The strategic planning concept proposed for the Army involves defining personnel goals, understanding the environment in which it must plan to operate, and developing the strategies that will lead to effective personnel policies and programs. This concept is summarized below.

Interests

1. Define and prioritize goals and objectives.

Alternative Environments

2. Define relevant dimensions of the operating environment.
3. Explore alternative future environments.

Strategy

4. Develop shaping strategies, which seek to advantageously shape the future environment within which the Army plans to operate, and operating strategies, which are designed to attain the Army's goals within the context of the planning environment.

5. Develop hedging strategies to address future situations where, if a shaping strategy should fail or a possible but unlikely future event not included in the planning environment were to occur, a different operating strategy would be required.

This process will require a significant change in the way the Army thinks about planning. It will focus effort on the intellectual and creative aspects of the *process* of strategic planning rather than on the *product* of planning, development of "a plan." The explicit consideration of uncertainty and the development and evaluation of "contingency plans," or hedging strategies as they are called, require a different mind set and different talents from those needed in the current process.

This report recommends that the revised process be implemented in an incremental manner over the course of the next two-year planning cycle. The implementation would concentrate on the development of decision papers and resolution of genuine policy issues. The analysis and creative involvement of the senior Army leadership would broaden the intellectual basis for personnel planning and would both inform current decisions and provide the policy guidance for inclusion in the next version of *The Army Long-Range Personnel Plan*. The plan would be a natural outcome of the strategic planning process but not the central reason for it. Such a plan would be an adjunct to force structure and resource planning guidance promulgated by other elements of the Army staff and is needed to inform subordinate commands as to:

- Key personnel planning assumptions.
- The range of alternative futures facing the personnel community.
- An approved set of personnel strategies to shape various aspects of the environment and to operate in the resulting planning environment.
- An approved set of hedging strategies to deal with the uncertainty facing the personnel community.

ACKNOWLEDGMENTS

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1. INTRODUCTION

The U.S. Army is facing a period of change and uncertainty as a result of unprecedented shifts in international relations. As discussed in *The Army Long-Range Personnel Plan,*[1] the Army must develop new personnel strategies and programs to recruit and sustain the force at a time of increasingly constrained resources, looking toward a future bearing considerable uncertainty in terms of force size and composition, mission focus, and basing. These factors have major implications for how the Army personnel community might do business in the future.

THE IMPORTANCE OF STRATEGIC PLANNING FOR MILITARY PERSONNEL

During 1989 and 1990, changes in the Soviet Union and the reordering of Eastern Europe have shaken the foundations of U.S. defense planning for the first time since the end of World War II. The degree of uncertainty and rate of environmental change facing defense planners is unrivaled in this half of the century.

Secretary of Defense Robert S. McNamara instituted in the early 1960s major innovations in defense planning, programming, and budgeting; the planning part of the trio, however, has long been the "silent partner."[2] A stable NATO and Warsaw Pact and a single dominant Soviet threat have allowed U.S. defense planners to assume a fairly constant future environment. Hence, there has been little need to examine alternative defense strategies to cope with changing national interests or a changing or uncertain environment. The Defense Department has been afforded an extended opportunity to devote its energies to programming and budgeting, allowing the planning function to remain stagnant in its fairly invariant set of assumptions about the threat and the other elements of the external environment.

World events have now changed that picture of stability; the environment confronting U.S. defense planners has become just as uncer-

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[1]U.S. Department of the Army, Office of the Deputy Chief of Staff for Personnel, *The Army Long-Range Personnel Plan,* May 1990, p. 1.

[2]Background can be found in Donald B. Rice, *Defense Resource Management Study,* U.S. Government Printing Office, Washington, D.C., February 1979.

tain and dynamic as that facing U.S. industry, perhaps more so. In fact, the planning challenges facing the Defense Department are in many ways analogous to those facing U.S. industry. Therefore, current thought on strategic planning in the private sector may provide useful insights to defense planners. The strategic planning ideas developed by industry to address other, nonpersonnel issues may prove applicable to Army manpower and personnel planners as well.

The closed nature of the military personnel system distinguishes it from civilian personnel systems, particularly for the purposes of strategic planning. Although large firms must consider staff development in their strategic planning, they are able to expand their work forces rapidly by hiring from other firms. The Army can rapidly expand its junior force simply by recruiting or drafting more soldiers. But because the Army prohibits lateral entry, it is unable to expand its stock of middle-grade and senior officers and noncommissioned officers in the same way. It takes 15 to 20 years to grow a stock of first sergeants or battalion commanders. Hence, the Army personnel system has a long planning horizon.

Few question the need for examining Army personnel issues in the context of strategic planning. Despite this undisputed need, however, many find current planning results wanting. Personnel planning is often reactive rather than proactive. Not only do force planners and other planners of nonpersonnel functions need the output of personnel planning to inform their strategic decisions, personnel planners themselves need to plan strategically to aid their own decisions.[3]

Policy choices by the personnel function carry with them characteristics that policy choices by other Army functions may lack, including two important features:

- Irreversibility, or a high cost to reverse;
- Long duration of effects.

The Army may, for example, decide to procure a particular weapons system and then revisit that decision several times, canceling and restarting at each decision point. Although such a course is fraught with political liabilities, incurs additional costs, and delays the ulti-

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[3]Pirie provides one view of the disconnect between need and result based on his experience as the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics). See Robert B. Pirie, Jr., "Military Manpower in Current U.S. Strategic Planning," in Gregory D. Foster, Alan Ned Sabrosky, and William J. Taylor, Jr. (eds.), *The Strategic Dimension of Military Manpower*, Ballinger, Cambridge, Massachusetts, 1987, pp. 53–63.

mate fielding of the system, it is conceptually feasible. In fact, such stops and starts in hardware procurement are not uncommon.

Similarly, the Army may adopt a particular warfighting doctrine and then discard or revise it with no long-lasting ill effect, other than the temporary confusion of its soldiers and, perhaps, its allies and potential enemies. These sorts of nonpersonnel decisions are eminently reversible; they possess no inherently permanent character that precludes reversal.

Many personnel decisions, on the other hand, shape the force 25 or 30 years in the future, sometimes with irreversible effects. Suppose, for example, that the Army decides this year to separate from active service large numbers of middle-grade noncommissioned officers, to meet reduced end-strength targets. Such a decision cannot be reversed next year. No matter how much a nascent threat in 1992 or beyond proves that it was a mistake to release those soldiers, the experience, training, and knowledge they possess is lost to the Army; the decision is largely irreversible.[4]

Similarly, a policy decision to emphasize retention of senior personnel over a period of years within given end-strengths reduces the requirement to recruit new soldiers each year. This in turn yields smaller pools of junior personnel from which to select and groom future leaders. Once such a policy is implemented, the number of personnel in the recruit pools cannot be increased in subsequent years;[5] the decisions of the time permanently shape the soldier profiles in an important segment of the force.

Training and leadership development programs also have long-term effects. To the extent that the force structure 10 to 15 years in the future will require different characteristics or talents from today's force, the Army needs to begin now to produce the required officers and noncommissioned officers to meet those new requirements. In addition, personnel actions carry with them other less direct effects that are just as durable and potentially disruptive. Assignments, promotions, and pay changes may have unintended effects on morale and attitudes far into the future. Even policies discussed but not adopted

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[4]The Army might later offer monetary incentives to induce some of the released soldiers to return, or it might attract a few back with appeals to patriotism. Some might also be induced to join the reserves where their experience would not be totally lost. For the most part, however, the decision to release them stands.

[5]This is not to say, of course, that additional reenlistment bonuses might not be used to induce a larger fraction of the smaller population to stay and thus offset to some extent the effect of the smaller cohort.

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may influence individuals to leave the service or others not to join. Peacetime decisions about procurement, logistics, supply, or other aspects of the Army do not generally carry with them such permanence and irreversibility.

This character of personnel decisions, then, argues for considering questions about future personnel structure in some detail. In particular, we must ask: *How might our current personnel decisions play in the future?* Or, to put it another way: *How can uncertain but plausible future events inform personnel decisions that need to be made today?* The increasingly uncertain political and economic world scene makes strategic planning in all Army functions more essential today than any time since World War II. Growing domestic pressure on defense expenditures contributes to the uncertainty about force levels, deployments, and basing, all key determinants of personnel policy. Likewise, perceptions about the importance of defense activities may substantially change the public support for military service and the environment in which to recruit and retain adequate numbers of quality soldiers to meet future force structure requirements.

PURPOSE

Strategic planning for the Army personnel function offers the Army a way to cope with a broad range of uncertainties. The goal of strategic planning is *not* to predict the future; rather its goal is to describe a *range* of alternative future states that *may* occur and to develop personnel strategies that attempt to (a) steer events to a more desirable future state and (b) best allow the Army to accomplish its personnel goals regardless of the future state. Strategic planning helps the Army cope with uncertainty, not reduce or eliminate it. Perhaps more important, strategic planning provides a means of identifying and illuminating issues in order to influence *today's* decisions about the Army of the future.

We suggest that the purpose of strategic planning is not to produce a document, although a document might be one product. Instead, its purpose is to guide thought and to aid decisions with an understanding of the future implications of those decisions under alternative assumptions about an uncertain future. A potential failure of strategic or long-range planning is it can become document-oriented rather than concept-oriented.[6] The process described here should help avoid

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[6]David M. Reid, "Where Planning Fails in Practice," *Long-Range Planning*, Vol. 23, No. 2, April 1990, p. 90.

that problem. For strategic personnel planning to succeed, the Army must place its planning energy and effort on creative consideration of alternatives as opposed to document production. A formal process needs to encourage such thinking and provide a systematic process that can support such thinking independent of personalities.

This report does not propose a particular plan, development of which is better left to the Army. Instead, this report offers a framework that describes what a personnel plan might contain, what functions it should perform, and how it should relate to other Army planning, programming, and budgeting documents.

APPROACH

Our analysis examines strategic planning concepts developed for and used in the private sector to deal with uncertain futures. Although not designed with personnel planning in mind, such general concepts, we suggest, apply to strategic planning for personnel in the Army in the face of the uncertain future environment and rapidly changing personnel needs.

Section 2 describes the strategic planning context and a planning model developed and used in the private sector and compares them to the current Army long-range planning process. Section 3 provides a conceptual framework for a strategic planning process for the Army personnel function and describes an approach for implementing the suggested concept. Section 4 provides recommendations and concluding remarks. The appendix describes the Army long-range planning process and two products of that process (*The Army Long-Range Planning Guidance* and *The Army Long-Range Personnel Plan*).

2. STRATEGIC PLANNING: EXISTING PARADIGMS

Large corporations in the United States are demonstrating a growing interest in long-range planning. During the past two decades, the uncertainty arising from greater international competition, changing government regulation, and increased volatility in inflation rates, interest rates, and other economic factors have caused many large U.S. corporations to turn to long-range strategic planning. It is an unusual large business today that does not undertake strategic planning in some form. In fact, the extent of uncertainty and pace of change have led to a reordering of corporate hierarchies. Large corporations now commonly assign to the office of the president the management of day-to-day and short-term problems while the chief executive officer deals with long-term or strategic issues.

There appears to be no generally accepted methodology for long-range planning. Both the popular and the academic literature describe a wide range of planning paradigms and variations on them. Even the terms "strategic planning" and "long-range planning" are often confused or used interchangeably. William W. Simmons, the designer of the long-range planning system at IBM, identifies a distinguishing characteristic of strategic planning. He asserts that strategic planning can be undertaken only by top management since it involves deciding where the institution wants to go and then devising the means of getting there.[1] For our purposes, long-range planning is a generic term that distinguishes itself from other planning by its time horizon and not by its nature. Strategic planning is characterized by its focus on an organization's most important—or strategic—policy issues and on its purpose.

Since strategic issues span the time horizon from near term to long range, strategic planning includes both short-term and long-range planning. It is, however, the long-term issues that prove the thorniest for strategic planners, as discussed here in some detail. Strategic planning does not necessarily imply setting policies today that are intended to remain in effect over the long term. Strategic planning means looking out from today through an extended time horizon to identify decisions that need to be made today because of events that

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[1] William W. Simmons, with Richard B. Elsberry, "Vision Quest: Long-Range Planning at IBM," *The Futurist*, September–October 1988, p. 18.

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may occur in the future. Policies set today do not necessarily remain invariant over long periods of time; they are subject to revision or reversal over time as the environment dictates.

A commonly employed and simple approach to strategic planning embodies three elements:

- Identifying the institution's interests or goals;
- Defining the environment in which the institution will operate; and
- Devising a strategy for attaining the goals given the constraints imposed by the environment.

However, as pointed out by Ascher and Overholt, this simple model is inadequate to deal with the needs of long-range strategic planning (although it may be useful for short-range strategic planning.)[2] Ascher and Overholt have developed a paradigm that addresses the shortcomings of the simple model. Their more sophisticated approach deals explicitly with uncertainty, recognizes that the planning agency can influence certain aspects of the future environment, and requires planners to hedge against uncertainty. We believe these are features essential to a strategic planning process and have adopted the Ascher and Overholt model as our point of departure.

In this section, we describe the current state of strategic planning in the Army as a whole and in the Army personnel system, and compare that planning with a simple strategic planning model and with the more sophisticated Ascher and Overholt paradigm. In Sec. 3, we demonstrate how both the existing Army practice and the Ascher and Overholt model require certain modifications to be useful for the Army, and we derive a process tailored to Army needs.

THE CURRENT STATE OF PLANNING IN THE ARMY

Current Army planning follows the simple model we described above, common in the private sector and in government.[3] This model,

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[2]A substantial discussion of these corporate trends and their applicability to defense planning may be found in Paul Bracken, *Strategic Planning for National Security: Lessons from Business Experience*, RAND, N-3005-DAG/USDP, February 1990; Paul Davis, *National Security Planning in an Era of Uncertainty*, RAND, P-7605, September 1989; and William Ascher and William H. Overholt, *Strategic Planning and Forecasting: Political Risk and Economic Opportunity*, John Wiley & Sons, New York, 1983.

[3]See the appendix for a detailed discussion of the Army long-range planning process and two documents developed using the process—*The Army Long-Range Planning Guidance* and *The Army Long-Range Personnel Plan*.

shown in Fig. 1, begins with a set of goals or objectives (termed *interests*), juxtaposes them against a fixed set of environmental conditions, and then develops a strategy for achieving the goals or objectives. Several strategies may be tested to find the "best" one for the given conditions.

Army planners typically define missions (interests), assess the hostile threat and resources available (environment), and then develop a strategy to accomplish the missions. In the personnel planning context, the personnel planner, with the mission of manning a force structure given him by the force planner, assesses the recruiting and retention environment as well as other external factors and then develops a set of personnel policies—a strategy— designed to man the force with qualified personnel. This simple par idigm contains several weaknesses.

- Embedded within any overall mission are a number of implied sub-missions, all of which are not of equal importance. The model lacks a prioritization of those multiple missions. Planners need an idea of the relative importance of missions so they can weight their plans accordingly. Further, it is helpful for a plan to describe the ways in which interests conflict or complement each other. This simple model does not allow for such analysis.

- The model fails to develop alternative environments that may develop. For short-term planning there is little uncertainty surrounding the external environment. It is relatively safe to predict a single future environment—the most likely set of external conditions (or, as often practiced in defense planning, the most demanding or stressful condition). But the longer the planner's time horizon, the greater the environmental uncertainty, and, hence, the greater the need for the planner to deal explicitly with that uncertainty. The dramatic changes in the world order over the past two years have added greatly to the uncertain environment the Army faces. As the world becomes more uncertain, it becomes less possible to predict the future of the international order, the future state of the U.S. economy, and the taste of the American people for military expenditures; therefore, it is

Fig. 1—Simple strategic planning model

less possible to predict the size, missions, readiness levels, degree of modernization, or the basing structure of the U.S. armed forces. This growing uncertainty necessitates the use of some means to investigate alternative future environments and their implications for the Army.

- The model ignores planners' ability to influence the future. It contains no sense of what actions planners might take to shape environments in ways that better allow the organization to further its interests. In many cases, decisionmakers can influence, at least to some extent, the external conditions that determine requirements.

- Finally, the model neglects development of strategies designed to cope with unforeseen or unlikely conditions. In planning combat operations, the military services rely to a great extent on contingency planning. However, overall force planning—deciding the forces that must be in being in the long term to carry out the missions described in operational contingencies—neglects contingency planning. Instead, force planning tends to be driven by a specific single set of assumed future conditions.

A MORE COMPLEX STRATEGIC PLANNING MODEL

Ascher and Overholt describe a model that remedies the above shortcomings. Their process, while not perfectly applicable to the problem of Army personnel planning, does provide a useful point of departure for the development of a process better suited to the Army. Their process is described below.

Interests

Interests are stated at a level of generality such that they are likely to remain valid over the planning period. Ascher and Overholt describe, for example, that national security planners might list several specific interests under the categories of political (U.S. unity, democracy and liberty, democratic institutions), economic (access to raw materials, trade, investments, limiting pollution), military (defending the United States or U.S. interests), moral (safety of U.S. citizens, amelioration of human suffering), and management (credibility, intelligence, morale, effective organization). The Army personnel planner's list would comprise a more specific and narrow set of interests such as manning the force efficiently, maintaining high morale, supporting equal opportunity, and so forth.

Next, the planner weights, or rank orders, the various interests. Then, based upon the priorities assigned, the planner attempts to understand the interrelationships among the interests. He strives to understand ways in which the various interests conflict and reinforce, or complement, each other. This systematic understanding of interests, their relative importance, and their relationships to one another allows the planner to describe tradeoffs among them.

Environments

Because the strategic planner faces an uncertain future, particularly in the long term, he must develop mutiple future environments. Ascher and Overholt call for a range of plausible future states. To be relevant to policy decisions, these future environments must describe the future in terms useful to policymakers. They should describe dimensions, or aspects, of the future environment that have a relevance to the interests of the organization and to policy decisions. Relevant dimensions have an effect on the interests previously identified. Along certain dimensions, the future may be forecast with a high degree of accuracy. Other dimensions are surrounded by varying degrees of uncertainty. Those that are likely to remain constant or whose change can be predicted witn a high degree of certainty define what are collectively termed the *core environment*. For personnel planners, core elements would include the nature of service, continuation of the all-volunteer force, and the projected demographics of the future recruiting pool.

It is more difficult to deal with future dimensions whose outcomes are uncertain. Good forecasting techniques can reduce some of that uncertainty. But certain future dimensions, though relevant, simply can not be forecast with any accuracy. These less certain dimensions become part of *alternative environments* in the Ascher and Overholt scheme. Plausible outcomes of such dimensions are synthesized into a handful of alternative environments according to a theme. For Army personnel planning, one might choose to synthesize environments according to the theme of difficulty of attracting and retaining servicemembers. For example, one alternative environment might be based upon a set of values for each uncertain dimension such that the overall environment would represent a favorable recruiting and retention environment. Such an environment might result from a high state of public esteem for the military, relatively abundant resources for the personnel accounts, and a relatively small force structure to man. A second environment might consist of other values of the same dimensions—values that would result in a less favorable recruiting

and retention environment. Since the core environment remains the same regardless of the alternative environment under study, the core environment may be thought of as a part of each alternative environment.

Figure 2 shows a core environment with three alternative environments. Since alternative environments may not capture all the possible important outcomes of the future, the model allows for *exogenous contingencies*. These contingencies may be thought of as unlikely but possible shocks to the system that are important enough to require some strategy should they arise, but which do not fit exactly into any of the alternative environments. Future Desert Shields or Desert Storms, the return to a draft, or a program of national service in place of the all-volunteer force would be, for example, exogenous contingencies in this context.

Strategies

Getting from environments to strategies entails several steps. First, the core environment leads to a set of policies based upon those constant or predictable future elements. Ascher and Overholt call this set of policies the *core strategy*.
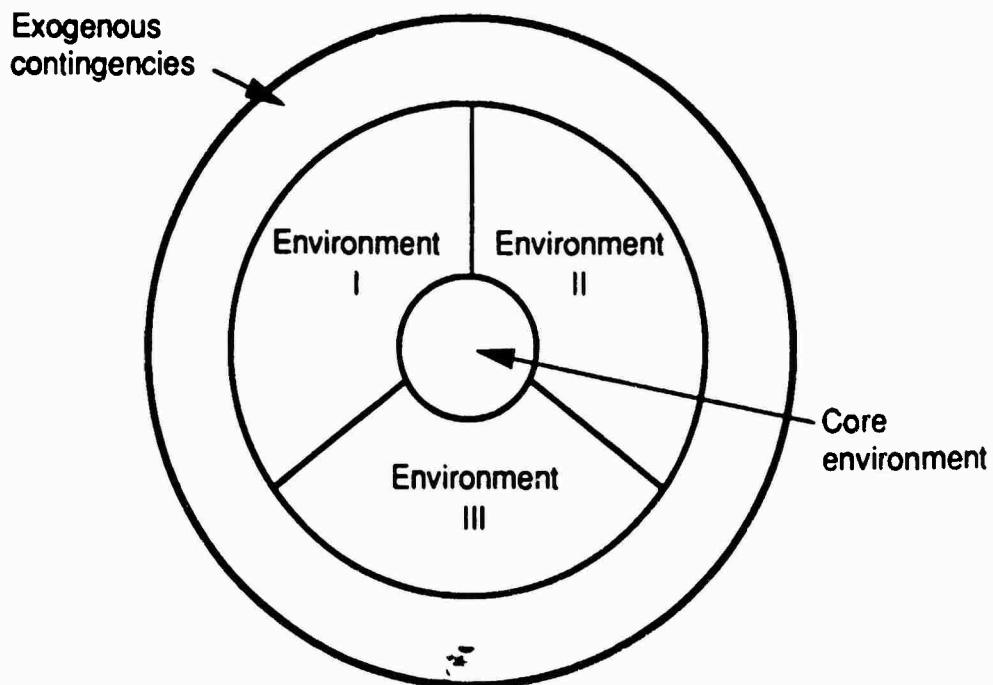
Fig. 2—Environments and contingencies

Next, the planner derives a *basic strategy*, intended to serve two ends: to shape the future toward the optimal environment (called the *basic environment*) and to help the organization to operate successfully in that environment. The core strategy, then, is derived from the fixed or certain elements of the future; the basic strategy is derived from uncertain aspects of it.

But since the basic strategy may not succeed in shaping the future to the desired state, and since surprises may occur, the planner develops a set of *hedging strategies* to prepare the organization for such eventualities. Figure 3 illustrates the process of developing strategies from environments.
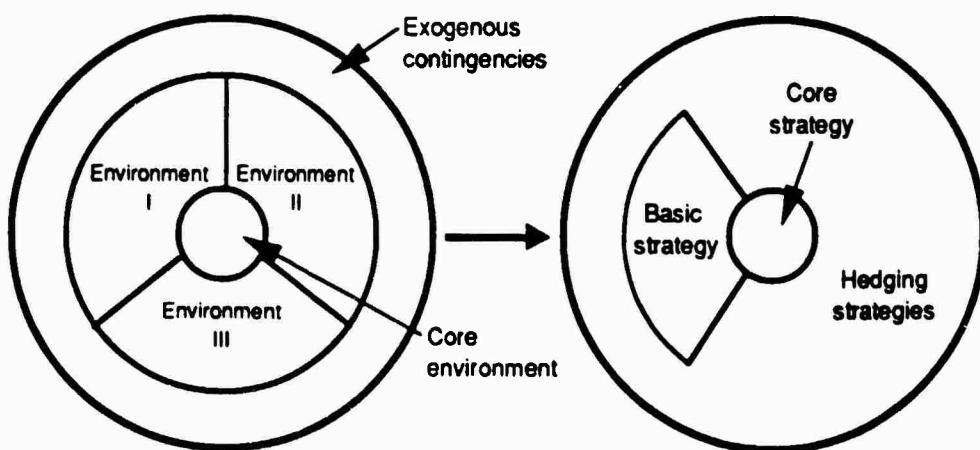
Fig. 3—Developing strategies from environments

SUMMARY

As discussed in this section (and in more detail in the appendix), the current Army long-range planning process is similar to the simple strategic planning model found in the literature. It shares four major shortcomings with that model. First, it lacks prioritization of interests or explicit consideration of tradeoffs among the interests. Second, it fails to explicitly consider alternative environments that might evolve in the future. Third, it ignores any ability to shape the environment either through directed action or through the incidental and perhaps unintended effects of other actions. Fourth, it neglects contingency planning and the need for hedging strategies to guard against uncertainty.

As discussed above, applying Ascher and Overholt's more sophisticated model for strategic planning would correct these shortcomings.

But even this model has three aspects that limit its usefulness to Army personnel planners. First, it does not provide a mechanism or guidance for developing alternative environments. Second, it forces the decisionmaker, or planner, to choose a basic environment—either the most likely or the most desirable environment. Finally, we have had difficulty implementing the concept of a core strategy. There are few dimensions that both meet the definition of core (they will not change or will change predictably) and are sufficiently important to warrant a separate strategy. Also, the dimensions, in most cases, do not map one-to-one to a strategy. For example, a recruiting strategy depends heavily on demographics, which may be core, but also must consider other dimensions like force structure, basing, and levels of pay, which are not core. These three aspects are dealt with in the planning model proposed in the next section.

3. STRATEGIC PLANNING FOP
THE ARMY PERSONNEL FUNCTiⱯN:
A PROPOSED MODEL

The strategic planning model we propose has many of the attributes of the Ascher and Overholt sophisticated planning model described in Sec. 2, as well as some shortcomings. There are strong reasons to employ a different construct of the environments, one that accommodates uncertainty to a greater extent in strategy development. Further, we take a different approach to the core strategy, one that integrates the core strategy into other elements of strategy so as to better accommodate the fact that most of the relevant dimensions are likely to be interrelated. We suggest three main steps. First, define and prioritize interests. Second, develop and analyze alternative future environments. Third, develop an overall plan that contains shaping strategies, operating strategies, and hedging strategies. The remainder of this section describes our proposed process.

INTERESTS

The first step in strategic planning is to define and prioritize interests and goals. We can turn to *The Army Long-Range Personnel Plan* for one idea of such goals. That document lists five goals: recruitment, personnel management, leader development, retention, and integration of personnel systems and technology, as summarized below:[1]

- Recruitment: Recruit a sufficient number of quality personnel to meet the military and civilian requirements of the Total Army.

- Personnel management: Refine the military and civilian personnel management systems to ensure they bring a balanced force to the Army.

- Leader development: Develop soldiers and civilians at all levels to maximize their capabilities in either a peacetime or wartime environment through assignment, training, and advancement processes.

- Retention: Crea⸱⸱ policies, incentives, and a quality of life environment that su⸱⸱ort the retention o⸱ the best and brightest military and civilian personnel.

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[1]*The Army Long-Range Personnel Plan*, p. 8.

- Integration of personnel system and technology: Make the military and civilian personnel systems become as similar as possible in order to foster the same values in both.

For the most part this statement of goals appears adequate. They are sufficiently general so as to be unlikely to change during the planning period but sufficiently specific to be useful. Implicit, though, is an efficiency criterion—accomplishing those aims at a minimum economic cost. Because of the importance of resource constraints in pesonnel policies and programs, we believe efficiency must be an explicit goal for personnel strategic planners. Also, with the current emphasis on downsizing the Army and the uncertainty about the future need to rapidly expand the force, we would add expansibility as another explicit goal.

After defining the goals, it is important to evaluate the goals to determine which may complement or conflict with one another. This is one of the most neglected parts of strategic planning.[2] A fundamental issue in strategic planning is to understand the tradeoffs between various goals and to weight them or establish relative priorities among them. This is particularly true in a resource-constrained environment. Strategic planning, to be relevant and useful, must be linked to resource planning and management. In the Army, this means strategic planning must be linked to program and budget development. The historical practice of planning in a resour e-free context has contributed to the Army's lack of utility in long-range planning.

Conflict or complementarity among the goals seems particularly critical in long-range personnel planning where the interaction between recruiting and retention goals, for example, has important implications for manning the force and for other personnel policies. Assignment policies, compensation alternatives, and training options are all affected by the priority given to bringing in new people as opposed to retaining existing servicemembers. This is particularly true in today's environment with the short-run need to reduce the force coupled with the long-run uncertainty as to the possible need to rebuild the force. If the force is reduced through reducing accessions while retaining senior personnel, then there will be a smaller pool of junior personnel from which to select and grow future leaders. The reverse

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[2]William Ascher and William H. Overholt, *Political-Economic Forecasting for Policymakers*, Hudson Institute, Report No. HI-3034/2-RR, Croton-on-Hudson, New York, 1979, p. 6.

case—maintaining the accessions flow—reduces the number of senior personnel who can be retained and would affect the Army's ability to rapidly expand the force. Emphasis on recruiting versus retention to size and shape the active force also has implications for manning the reserve components—losses from the active component might not be adequate to meet the prior-service accession needs of the reserve components.

ENVIRONMENTS

The next step is to define alternative environments, explicitly recognizing uncertainties.

Alternative environments should be relevant to the question being addressed. While seemingly an obvious statement, planners often define alternatives which are simply not relevant. Alternative environments for personnel planning should include those elements that most affect attainment of the personnel goals and that influence current decisions.

The next step is to develop the alternative environments. One way discussed in the literature, and used in the Army long-range planning process, is through trend extrapolation. Another is through the development of alternative future scenarios. Trend extrapolation serves planners well over short time horizons of one to five years. Beyond that horizon, uncertainty tends to render trend extrapolation useless.

We propose a combination of these approaches. First, define the environment dimensions that are relevant to today's strategic decisions regarding personnel. Second, project the range and likelihood of possible outcomes along each of the dimensions. Third, develop a set of scenarios and analyze the implications of the scenarios for each of the dimensions. Each of these steps will be discussed in more detail below. First, however, what are the primary dimensions and what are their characteristics?

Dimensions

Dimensions may be described by at least four characteristics—relevance, range of possible values, probability distribution for those values, and the degree to which the values might be changed or shaped by the Army.

To illustrate the proposed process and the development of alternative environments, Table 1 displays eight proposed dimensions (the na-

Table 1

Dimensions of the Environment and Their Characteristics

Dimension	Relevance	Plausible Outcome	Predictability	"Shapeability"
Nature of personnel system				
Basis of service				
Demographics				
Army image				
Force structure size				
Mission focus				
Basing				
Resources for personnel				

ture of the personnel system, basis of service, demographics, image of the Army, force structure, mission focus, basing, and resources for personnel) and the four characteristics listed above. These dimensions are not intended to be a final set for Army personnel planning but an example to illustrate the characteristics of dimensions and their role in the proposed strategic planning process.

To begin using these dimensions, we first consider four characteristics of each: their relevance, range of plausible outcomes, predictability, and "shapeability."

Relevance. Relevant dimensions are parameters outside the personnel community which affect the decisions that must be made or which are affected by those decisions and in turn may influence other decisions. If some future dimension is interesting but does not affect and is not affected by current decisions, then that dimension is not relevant. On the other hand, a future dimension that has significant influence on decisions but whose outcome is highly uncertain, possibly even unknowable, is relevant and must be assessed despite the uncertainty surrounding it. Although some candidate dimensions may be discarded early as obviously irrelevant, the relevance of many may be finally determined only in an iterative fashion as planning progresses. For these eight, none is obviously irrelevant. Each should be examined to determine plausible outcomes, the probability distribution for those outcomes and their "shapeability."

Range of Plausible Outcomes and Their Predictability. These two characteristics are related. First, it is necessary to determine the possible outcomes for each dimension and to determine the current

value (where we are today). Second, one may determine the predictability of each of the possible outcomes or the outcome's probability distribution.

Shapeability. Shapeability is the degree of control or influence the Army or the personnel community might have on that dimension. Its effect might extend to determining a certain outcome. It is more likely, however, that the Army will simply be able to reduce the degree of uncertainty or to weight the possible outcomes in some direction.

Alternative Environments

Let us turn now to the use of the concept of dimensions in constructing alternative future environments. Two methods can determine the possible values of the dimensions and what the future values might be. First, we may simply analyze each dimension independently and forecast possible outcomes. The particular forecasting methodology will depend upon the nature of the dimension and the tools available. In most cases, it will be a simple extrapolation of current trends or of reflecting possibilities either inside or outside the Army. All realistic possibilities should be considered, no matter how unpalatable or inconsistent with current thinking. Each of the dimensions and a range of possible futures are discussed below.

The Nature of the Personnel System. It seems safe to assume that the Army will continue to operate a closed military personnel system. The Army almost certainly will continue to bring officers and enlisted personnel in from the bottom and promote from within. The civilian personnel system will continue as an open system with, for the most part, no barriers to entry at any level. We will consider military personnel and show the system as a closed system.

Basis of Service. The basis of service is likely to remain all-volunteer. It is difficult to envision events, short of a major war, that would lead to a resumption of the draft. Even more unlikely is a draft to maintain a peacetime force. Current Army planning properly assumes continuance of the all-volunteer force (AVF). Although there is little serious debate over a return to peacetime conscription, there is a continuing interest, particularly in the Congress, in some form of national service. Depending upon its specific features, a national service law could render a shock to the Army personnel system. It may be prudent for the Army's strategic planning process to recognize the possibility of some form of national service.

Strategic personnel planning should consider how national service options would affect the Army and what the Army might want included or omitted from a national service plan. To wait until such a situation arises in the politically charged and hurried atmosphere surrounding a congressional debate runs the risk of missing an opportunity to have an effect on the issue.

Demographics. There is little uncertainty surrounding the demographics of service-age youth. Those eligible to serve for the next 18 years have already been born. Other aspects such as educational attainment, literacy, and the trainability of the youth population are relatively predictable. Rates of disease, immigration, emigration, disability, and institutionalization introduce only a small degree of uncertainty. Nevertheless, demographic projections based on trend extrapolation and statistical forecasting techniques may be treated as almost certain over a fairly narrow range of values for strategic planning.

Army Image. The image of the Army is important in a number of respects. First, it affects the Army's ability to recruit and retain quality soldiers. It also affects the support the Army receives from the Congress, in terms of the resources it receives and the guidance and direction it gets about how it can use those resources. Finally, image affects the Army in other less direct ways; for example, the local economy affects how the Army operates bases and the extent of support it receives in acquiring firing ranges, maneuver space, and other key ingredients. If the public has a poor image of the Army and the importance of its mission, the Army suffers in a number of ways.

The dimensions of the Army's image might be measured several ways. For this discussion, let us assume that those dimensions are captured in a measure of the propensity of youth to join the Army. The Army can project possible future propensity based on various economic conditions. It may also be able to control image and propensity through advertising and community support activities such as the Boy Scouts or youth groups. Let us assume the future image is going to lie somewhere between the state that existed in 1980 when the image was poor and that of 1990 when the image was fairly good. (Although some unforeseen event might make it much worse or much better, that is sufficiently unlikely as to be unrealistic for general planning purposes.) These extremes define the limits of the range of values that may occur if the Army does nothing and if no major shocks occur.

Army Force Structure. The overall size of the total Army and the relative mix of the active, reserve, civilian, and contractor components are critical features in Army personnel strategic planning. Also im-

portant are the composition of the force in terms of the types of forces (e.g., armor, infantry, and special forces) and the degree of complexity of its weapons. The readiness levels required and, in turn, the training and proficiency required of the individual soldiers are other important factors related to force structure. For our illustration, we will use the size of the force to represent all relevant measures of force structure.

Mission Focus. The Army will devote an increasing proportion of its efforts to a variety of missions apart from preparing for mid- to high-intensity conflict in Western Europe. These missions include civil works, disaster relief, environmental clean-up, nation building, treaty verification, and security assistance. Its emphasis, however, is likely to be on preparing contingency forces to respond on short notice to small to mid-level contingencies anywhere in the world. A focus on maintaining CONUS-based contingency forces at a high state of readiness will have significant implications for the Army personnel system.

Basing. The Army plans to structure along the lines of three types of forces: forward deployed, reinforcing, and contingency. We anticipate that some forces will remain deployed overseas in peacetime, although not as many as today. Stateside stationing will probably be on fewer posts. The uncertainty surrounding the extent and timing of force reductions and the events in the Middle East make it difficult to say much more about future peacetime deployment. But since it is such a crucial part of the personnel environment, a strategic plan must deal with it. It is important to examine closely just what can be said with certainty and to consider those certainties in strategy development.

Resources for Personnel. The Army Personnel Plan omits the key issue of resources (consistent with the historical failure of planners to consider fiscal constraints). Although estimates of future resource levels carry with them substantial uncertainty, an estimated reasonable *range* of resource levels would be useful to planners. Regardless of the accuracy of such projections, simply understanding how future resource levels might change and how personnel policies might need to change in response would stimulate discussion within the Army about the sorts of armies various resource levels might imply.

The personnel system is a large consumer of budget dollars and often the subject of budget-cutting efforts. Strategic planning, to be useful, must be linked to resource planning and programming. In our view, unconstrained strategic personnel planning is largely irrelevant to the design of the future Army. Dealing effectively with the possible

resource constraints is essential to developing strategies that will prove effective and not need constant change on an ad hoc basis to adjust to realistic resource levels.

Figure 4 depicts a plausible range of outcomes for each of the dimensions, illustrative of what might result from a more detailed analysis. The figure shows the personnel resources dimension in terms of the percentage of the resource requirement that might be funded in future years.

Scenario Planning

The above approach is useful, but limited in several respects. One limitation is the likelihood that the range of possible values will reflect simple extrapolation of current trends and business as usual. The approach does not provide a mechanism for encouraging free thinking to identify other possible future events. Another limitation is that it does not form a framework for understanding the interrelationships between dimensions. Finally, it does not provide a vehicle

Nature of personnel system	Closed	
Basis of service	AVF, Draft, National Service	
Demographics	x,000 y,000	
Army image	Poor	Good
	(1980)	(1990)
Force structure	750,000	450,000
Mission focus	Heavy	Light
	Big war	Contingency
Basing	40%	10%
	(percent forward deployed)	
Resources for personnel	75%	100%
	(percent of requirement)	

Fig. 4—Plausible range of outcomes

for understanding how radical departures might occur on one or more of the dimensions or what might cause them. For these purposes, scenario planning is more useful than analysis or extrapolation of current trends.

Alternative scenarios can be generated in many different ways. We will describe one to illustrate the role of scenarios in our model of strategic planning.

Alternative scenarios should be developed around a set of themes or ideas. They should be developed independently of the dimensions analysis discussed above. Scenarios can be created in which every-thing is extremely bad from a personnel perspective, another in which everything is extremely good, and one that lies somewhere between the two extremes, with values for the dimensions implied in each.

Such a process can lead to radically different future environments and to an understanding as to how such circumstances might arise. A reasonable set of events defined in the scenario leads to the outcomes on each of the dimensions. This process adds credibility to the postu-lated future outcomes and provides coherence among sets of possible values. Rather than a process leading to selection of a particular world, it is an assessment of how to shape those worlds and how to operate in the face of uncertainty. Further, the process should pro-duce signposts or signals that warn planners when elements of the environment may be changing in ways that threaten plans. Figure 5 shows how a "bad" outcome scenario might look if superimposed on the previous diagram. Any given scenario can be overlaid onto the framework.

At this point in the process there should be an understanding of what possible futures exist along the relevant dimensions and how they might come about. The future may be known with reasonable cer-tainty. Some dimensions may simply be unlikely to change over the course of the planning horizon. In other cases, the outcome may be specified for planning purposes. Others may change but in a pre-dictable manner. These three categories might be represented by the nature of the personnel system, basis of service, and demographics dimensions discussed above. Dimensions in which the outcomes are known with certainty are described in the Sec. 2 model as the core environment. As pointed out by Ascher and Overholt (p. 30), planners sometimes focus on what is changing and lose sight of what is not changing. In Fig. 6, we identify them as core dimensions.
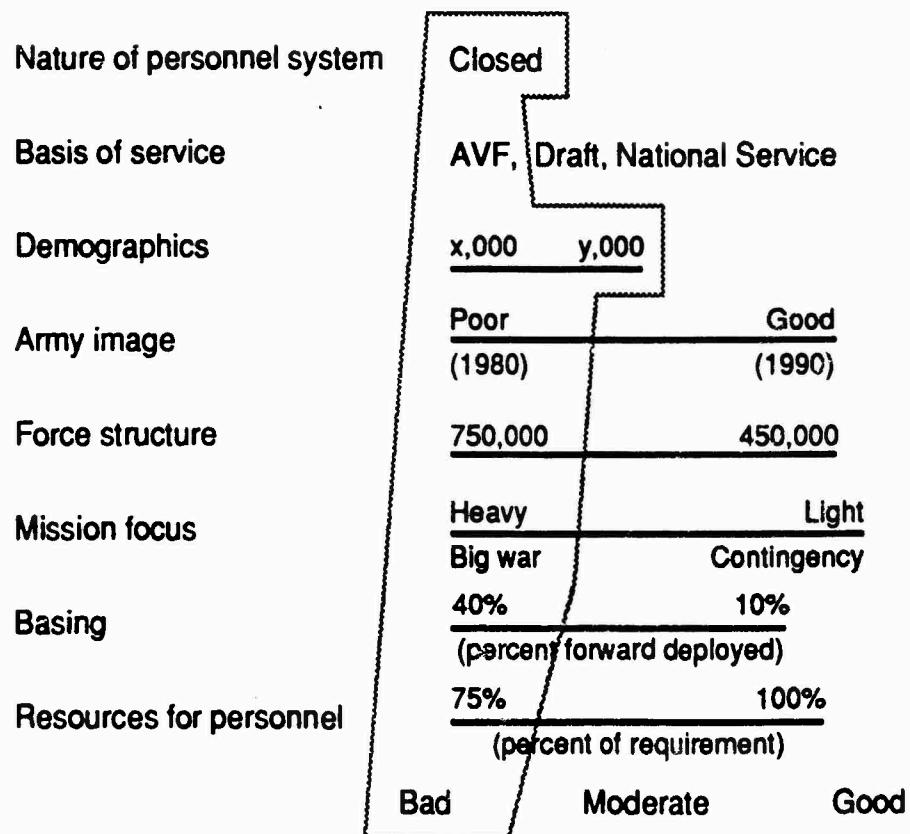
Fig. 5—Bad scenario overlay
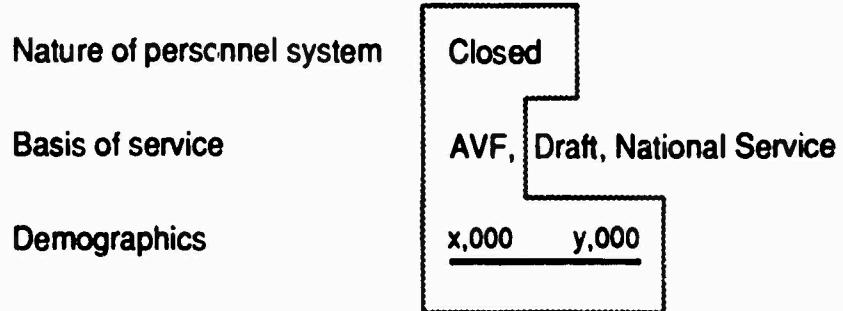
Fig. 6—Core dimensions

Strategy development is where we depart from the paradigms described in Sec. 2. In the paradigms described by Ascher and Overholt and others, the next step would be to select an environment for strategy development. From our perspective, that poses a number of problems. How does one know which alternative environment to pick? Should we pick the most likely point from each dimension? The most likely in a global sense that considers the relationships between dimensions? The worst case? Some of the literature suggests picking the preferred alternative.

None of these schemes for picking an alternative environment for strategy development seems correct for Army personnel planning. The "most likely" environment may not be much more likely than other very different ones, or not very likely at all.[3] In business planning, picking the "most likely" may be useful and the risk of being wrong may mean going out of business. Fisher discusses this scenario planning dilemma and finds no answer.[4] For the Army, going out of business represents an unacceptable option. The Army must plan in a fail-safe manner.

We propose a process that does not require picking an alternative. We suggest that the planner and the decisionmaker explicitly carry forward a range of uncertainty on dimensions that require it. As discussed below, we suggest that the environment be defined iteratively as a function of developing the strategy. Strategy development is the next step in the process.

STRATEGY DEVELOPMENT

Strategy is developed in three parts:

- Shaping strategies—those strategies for changing and shaping the future along those dimensions over which the Army and the personnel community have some degree of control.

- Operating strategies—those strategies for attaining the goals and objectives in the context of the future planning environment, which results from execution of the shaping strategies.

- Hedging strategies—strategies to deal with possible surprise events or shocks not considered in the other strategy elements.

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[3] James Dewar of RAND contributed this notion.

[4] Anne Fisher, "Is Long-Range Planning Worth It?" *Fortune*, April 23, 1990, p. 284.

Figure 7 depicts the range of dimensions of future environments that might result if the Army does nothing. It also identifies those dimensions over which the Army may have some degree of influence and for which it might wish to develop one or more shaping strategies.

Note that the first three dimensions are identified as core dimensions. Three others (Army image, force structure, and resources for personnel) are identified as having some degree of shapeability. These three are possible candidates for shaping strategies.

Development of Shaping Strategies

Shaping strategies influence future events and bring about conditions that are more conducive to successfully attaining goals than would otherwise be the case. The concept of a shaping strategy has two implications: preference along the range of possible futures, and the means to shape future events in the desired direction. The preference may be in terms of desiring a specific outcome or in terms of desiring

|		
Nature of personnel system	Closed	
Basis of service	AVF,	Draft, National Service
Demographics	x,000 y,000	
Army image	Poor ⟶ Good (1980) (1990)	
Force structure	750,000 ⟶ 450,000	Shaping strategies
Mission focus	Heavy Light / Big war Contingency	
Basing	40% 10% (percent forward deployed)	
Resources for personnel	75% ⟶ 100% (percent of requirement)	
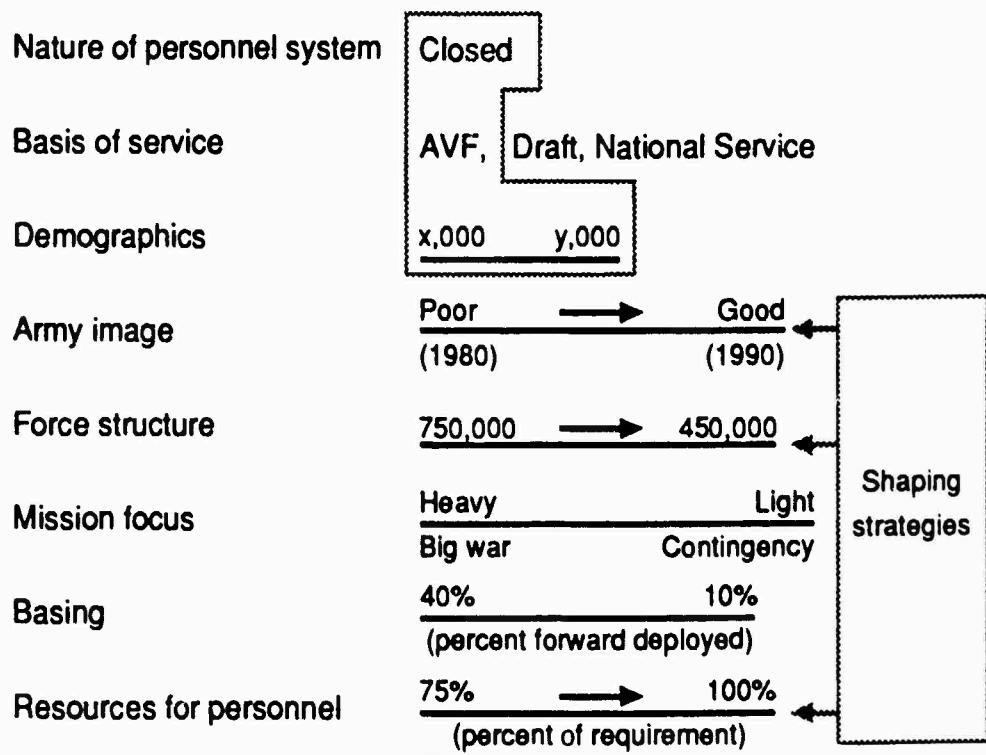
Fig. 7—Dimensions of future environments

to avert some set of outcomes while remaining more or less indifferent over the remainder. The means of shaping may ensure a high degree of certainty of bringing about a specific outcome. Often, however, it may offer only a reasonable degree of confidence in being able to influence events in a direction and over a range of possible outcomes. For the Army, it may be sufficient in some cases to ensure that some future event or set of events do not occur. This might be the case for Army image: The Army might be satisfied with shaping strategies designed to avert anything in the poor range with a high degree of certainty and be willing to accept any environment in the good to excellent range.

A shaping strategy to affect the Army image is an example of a dimension over which the Army personnel community can influence the course of future events outside the Army. Through advertising, participation in local community affairs, disaster assistance, and other activities, the Army can influence its image in the eyes of the public. This image in turn influences the propensity of youth to join the Army, the support of citizens toward having others join the Army, support in the Congress for Army programs, and local support for Army activities on bases and ranges. This influence is not absolute, however. Other events could swamp the Army's shaping ability. The Army cannot elect to stay out of an unpopular war or refuse to participate in an unpopular activity because it might harm its image. Such events may be considered unlikely for planning purposes, however, and not be considered in the development of shaping and operating strategies.

The Army personnel community may also be able to shape to some extent the course of events inside the Army. For example, although personnel considerations are unlikely to be the deciding factor in determining future force structure, they might have some influence if the personnel community can determine the effects of alternatives and make a convincing case. The personnel community might influence the rate of a change in the size of the Army force structure. It should also be able to influence the mix of personnel and the timing of their release—for example, the release of senior versus junior personnel, technical versus nontechnical personnel, and trainers versus doers. This dimension is probably less subject to long-term influence by the Army personnel community than is the Army image.

We have assumed for this discussion that the Army, and in particular the Army personnel community, will have little if any influence on the future basing of Army forces. Forward basing will be determined by international events, political considerations, and long-term secu-

rity requirements. The extent of future basing is uncertain and will remain so. In our view, more analysis or better projections are unlikely to reduce this uncertainty.

The Army and the personnel community may be able to influence the funding for essential personnel programs. They may affect the proportion of total Army funds devoted to personnel programs or, alternatively, may convince the Army to accept a reduced level of training readiness or personnel support. The Army can also expect to be fairly successful in arguing its case to the Office of the Secretary of Defense and the Congress for maintaining pay levels and other basic elements of compensation. Overall, with conscious effort the Army might expect its strategy to result in a funding level adequate to meet close to 100 percent of its "requirement."

Figure 8 depicts the result of our analysis of the dimensions in terms of the predictability of outcomes and the expected level of success of various shaping strategies. The result is called the planning environment. It is the environment that is expected to result from execution of the shaping strategies, and it reflects the remaining uncertainties along each of the dimensions. Note that it is significantly different from the basic environment in Sec. 2. The basic environment consisted of point estimates on each of the dimensions. The planning environment carries with it the full range of uncertainty on some of the dimensions. It is the planning environment that must be dealt with in the development of the operating strategies—those strategies intended to accomplish the future objectives.

Development of Operating Strategies

The above process could provide the planning community with a view of how the future environment, with all its uncertainties, is expected to evolve and how it might affect the attainment of the Army's plans. It would better prepare planners for developing the strategies needed to accomplish Army missions and goals. Personnel operating strategies will outline future personnel policies and programs and how they may need to change to adapt to a changing world and changing requirements.

Explicit consideration of the full range of uncertainty that may remain on some dimensions (such as for basing) will highlight where robust strategies may be required. Where robust strategies cannot be developed and uncertainty exists, the Army may elect to assume greater risk. It is possible that a feasible strategy cannot be devel-

Nature of personnel system	Closed	
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Mission focus	Heavy / Big war	Light / Contingency
Basing	40%	10% (percent forward deployed)
Resources for personnel	75%	100% (percent of requirement)

Shaping strategies
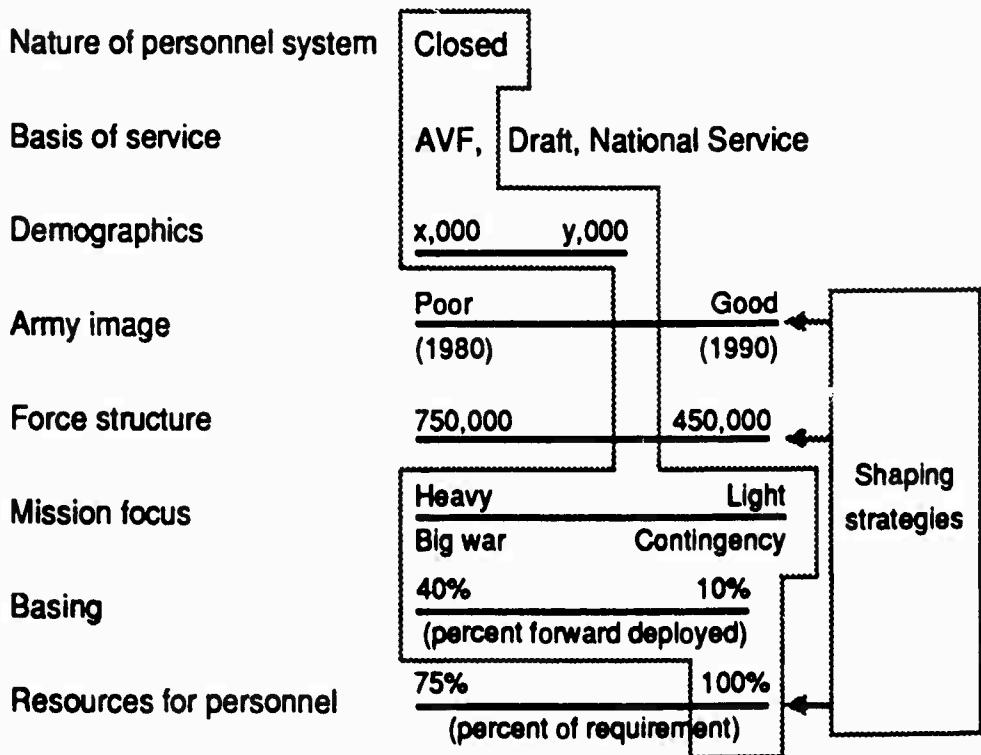
Fig. 8—The planning environment overlay

oped to attain the goals and interests within the parameters of the planning environment. Should this be the case, then the Army must reexamine its goals and priorities. In today's rapidly changing environment, the strategic planning process will very likely involve a number of iterations before it is able to settle on a satisfactory set of goals, priorities, risks, and strategies.

Development of Hedging Strategies

Because shaping strategies may fail to create the planned environment and because surprises may occur, hedging strategies are required to supplement the operating strategies. In our illustration, we assumed that the basis of service would remain all-volunteer. We also determined that, short of some major shock, future demographics were predictable. Although the Army may have high confidence in its ability to shape public opinion and the public's image of the Army, there is always the chance that some unforeseen event may occur that

would severely damage the Army's image. Those unlikely events represent opportunities for the Army to develop hedging strategies intended to mitigate the effects of any such events, rather than waiting and possibly having to react in "real time" without the benefit of having thought through implications of alternative courses of action.

Hedging strategies are by their nature ad hoc and less coherent than operating and shaping strategies. They most often deal with a single issue. Hedging strategies for Army personnel planners might deal with the passage of a national service law or a decision to allow women to serve in combat. Neither of these events may seem likely, but a hedging strategy could study the implications. Such an analysis would allow the Army to participate in policy debates in an informed and thoughtful way and thereby help shape the outcomes. Further, it would facilitate Army implementation of such policies should they be adopted. Hedging strategies (contingency plans) are second nature to military operations planners; they seem foreign to long-range policy planners.

SUMMARY

There are five major steps in the strategic planning concept proposed for the Army to define personnel goals, understand the operating environment, and develop effective personnel policies. The steps are:

Interests

1. Define and prioritize goals and objectives.

Alternative Environments

2. Define relevant dimensions of the operating environment.
3. Explore alternative future environments.

Strategy

4. Develop shaping strategies, which seek to advantageously shape the future environment within which the Army plans to operate, and operating strategies, which are designed to attain the Army's goals within the context of the planning environment.
5. Develop hedging strategies to address future situations where, if a shaping strategy should fail or a possible but unlikely future event not included in the planning environment were to occur, a different operating strategy would be required.

4. CONCLUDING REMARKS

In a rapidly changing environment, the military services will feel growing pressure to produce a coherent and robust set of policies and programs. The personnel community in the Army faces a difficult task as it attempts to react to both a changing force structure and a changing environment that imply manifold uncertainties about such factors as force size, mission, and basing. A strategic planning process that explicitly incorporates uncertainty is needed, and a model (see Sec. 3) patterned after the planning concepts used in private industry does this. The proposed process holds promise of not only better equipping the personnel community to react to the changing world, but also equipping it to be a player in shaping that world.

The strategic planning concept proposed for the Army involves five major steps to define personnel goals, understand the environment in which it must plan to operate, and develop the strategies that will lead to effective personnel policies and programs. This concept is summarized below.

Interests

1. Define and prioritize goals and objectives.

Alternative Environments

2. Define relevant dimensions of the operating environment.
3. Explore alternative future environments.

Strategy

4. Develop shaping strategies, which seek to advantageously shape the future environment within which the Army plans to operate, and operating strategies, which are designed to attain the Army's goals within the context of the planning environment.
5. Develop hedging strategies to address future situtations where, if a shaping strategy should fail or a possible but unlikely future event not included in the planning environment were to occur, a different operating strategy would be required.

This process would provide three benefits over the current process. First, it would provide a prioritized list of personnel objectives. Second, it would provide explicit consideration and discussion of the alternative future conditions facing the Army. Finally, it would provide a course of action to shape future conditions and policy alternatives to meet Army objectives while explicitly considering uncertainty.

Such a system should not focus on producing a "plan"; rather, it should attempt to create an environment for critical thinking about how personnel issues relate to the long-term interests of the Army in alternative future environments and in uncertainty. It would emphasize the intellectual and creative aspects of strategic planning rather than the development of a plan.

Ohmae, in a recent book describing strategy development in the context of Japanese business, states that strategy development calls for a thought process that is "creative and intuitive rather than rational."[1] The Army needs to engage in such a process by thinking about its vital personnel interests in a creative way, and by developing a strategy both for influencing the environment and for successfully operating in that environment. By taking the lead in that process, the personnel community has the opportunity to become a successful part of the Army's long-range planning system and thus a contributing player in future decisionmaking.

The system described here will not be easy to implement and will require a significant change in the Army. The explicit consideration of uncertainty and the development and evaluation of contingency plans, or hedging strategies as they are called in the report, require a different mind set and different talents than are needed in the current process. It will take a dedication of resources, personnel, and time, and the support of the senior leadership if the system is to succeed as a "thinking" process as opposed to a "documenting" process.

We do not say a "plan" is not needed. It is. It is vital for the leadership to have a means of communicating its personnel vision and strategy to the total Army. Such a document will not only provide planning guidance for the program and budget phase of the PFBES, but will also help ensure that all understand what the personnel policies are trying to accomplish and the limitations that may be imposed by factors beyond the Army's control. It would provide a

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[1]Keniche Ohmae, *The Mind of the Strategist*, McGraw-Hill Book Company, New York, 1982, p. 4.

ranking of its interests and relate those interests to the needs of the Army in such a way that all could understand.

The Army should take a phased approach to implementing a new strategic planning process for the Army personnel function, perhaps over the course of the current two-year planning cycle. The first step would be to begin building the analytic and intellectual capital needed to support the process. Second, a series of decision documents should be developed to actively involve the senior Army leadership in the consideration of personnel policy alternatives and implications and to force decisions on long-range personnel issues. As noted earlier, Simmons makes the point that real strategic planning can be done only by top management.[2] Only the senior leadership can decide where the Army should go and how it should get there.

At the conclusion of the planning cycle, an Army strategic personnel plan would be issued to document the results and to inform subordinate commands of:

- Key personnel planning assumptions.
- The range of alternative futures facing the personnel community.
- An approved set of personnel strategies to shape various aspects of the environment and to operate in the resulting planning environment.
- An approved set of hedging strategies to deal with the uncertainty facing the personnel community.

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[2]Simmons, op. cit., p. 18.

Appendix

THE ARMY LONG-RANGE PLANNING PROCESS

The Army runs a highly structured process within which it performs long-range planning as only one element of the Department of Defense Planning, Programming, and Budgeting System (PPBS).[1] The process produces two key long-range planning documents, *The Army Long-Range Planning Guidance* (ALRPG) and *The Army Plan* (TAP).

The first of these two biennial documents, the ALRPG, represents the lead document in the Army's long-range planning process.[2] It looks out 10 to 20 years and is strictly a planning document; it deals not at all with specific budget levels or force structures. Instead, the ALRPG assesses implications for the future Army of events and trends that are largely external to the Army. It serves as the basis for the long-range plans of the Army's major subordinate commands and component commands of DoD's unified and specified commands.

The latest version of the ALRPG, only a modest 13 pages in length, lists three purposes: (1) to provide a common basis for the development of the Army's long-range plans; (2) to guide the Army's concept-based requirements system, the process that ensures that all requirements for doctrine, training, organizations, and material are derived from approved concepts of how-to-fight or how-to-support; and (3) to provide decisionmakers with key considerations for near-term planning.[3] Curiously, the notion of dealing with uncertain outcomes and identifying choices, although mentioned in the body of the guidance, finds no place in the three statements of purpose.

The second document, *The Army Plan*, looks out 2 to 17 years. It serves as the bridge between the planning environment, which is fiscally unconstrained, and the programming and budgeting world of fiscal limits and specific force structures.

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[1]DoD Instruction 7045.7 governs the DoD PPBS. This instruction describes the details of the provisions of the system and the processes it controls. The Army's implementing regulation is AR 1-1, *Planning, Programming, Budgeting and Execution within the Department of the Army.*

[2]Army Regulation 11-32, *Army Long-Range Planning System*, January 1989, governs this process.

[3]*The Army Long-Range Planning Guidance*, Revised Edition, June 1989, p. 1.

It is in the ALRPG, then, rather than in TAP that one would expect to find a discussion of alternative futures and options for dealing with them. TAP, in fact, makes no allusion at all to alternative futures, or how the Army might shape them or hedge against the attendant uncertainties. The ALRPG, on the other hand, asserts that it provides "a process that monitors various possibilities and suggests a range of intended outcomes as boundaries for the environment within which the Army will operate over the next 30 years." Further, it purports to facilitate "identification of choices for the future."

After the ALRPG is published, the Deputy Chief of Staff for Personnel publishes his own plan, called *The Army Long-Range Personnel Plan*.[4] Intended to complement the ALRPG, it covers the same time span and uses the same methodology.[5] The current version of *The Army Long-Range Personnel Plan* (hereafter referred to as the "Personnel Plan" to contrast it with the ALRPG), which amounts to 12 pages, follows the same format as *The Army Long-Range Planning Guidance*.

COMPARISON OF THE ALRPG AND THE PERSONNEL PLAN

To aid in comparing the structure and content of the ALRPG and the Personnel Plan, see Table A.1. The structure of the two documents is very similar.

Table A.1

Comparison of the ALRPG and the Personnel Plan

ALRPG	Personnel Plan
I. Long-Range Planning Guidance	I. Introduction
II. Historical Perspective	II. Perspective
III. Methodology	III. Methodology
IV. Planning Assumptions	IV. Planning Assumptions
V. Independent Variables	V. Independent Variables
VI. Trends	VI. Trends
VII. Implications for the Future Army	VII. Implications for Army Personnel Planning/Strategy
VIII. Guidance	VIII. Personnel Planning Guidance

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[4]The latest version of *The Army Long-Range Personnel Plan* is dated May 1990.

[5]The Army's long-range planning process and methodology are described in AR 11-32, *Army Long-Range Planning System*, January 1989.

Methodology

Both the ALRPG and the Personnel Plan follow a six-step process:[6]

- Validate planning assumptions—those conditions expected not to change throughout the 30-year planning horizon. Assumptions are limited to those conditions of such importance that, should they change, the validity of the resultant planning would be considered invalid. They correspond to the core environment, in the terminology used in this report.

- Assess independent variables—those uncertain outcomes or unpredictable external events over which the Army has little control but that significantly influence the Army's ability to meet its long-range objectives. They correspond to alternative environments, but they are not packaged in themes, nor, as is shown later, do they actually describe ranges of uncertainty.

- Assess trends—those external conditions that are more predictable than the independent variables. They would be included as part of the core environment.

- Determine from the above assumptions, independent variables, and trends the implications for the future Army. This step would be part of the process of setting core, basic, and hedging strategies.

- Promulgate guidance based upon assessment of the options generated. Guidance represents a strategy.

- Provide for constant feedback from subordinate commands.

The Army's methodology thus possesses some elements in common with the models we have discussed. It omits certain key steps, however. In particular, it does not prioritize and deal with competing interests, specify ranges of uncertain outcomes, or deal explicitly with shaping or hedging strategies.

We will next examine each of the above steps in detail, looking first at the eight planning assumptions listed in the current ALRPG.

Planning Assumptions in the ALRPG

The current ALRPG lists eight assumptions upon which its planning is based:

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[6]The ALRPG is more explicit in describing its purpose, methodology, and objectives and thus is used here in determining intent. *The Army Long-Range Personnel Plan* follows the same methodology but is not as explicit. The observations made below apply equally to both documents.

1. The Army will remain the predominant force waging the nation's land campaigns. As a strategic force, the Army will be required to prevent, control, and terminate war on terms favorable to the United States.

2. Nuclear capability will continue as a fundamental building block of defense policy. Dual-capable systems (nuclear and non-nuclear) will remain an integral component of general purpose forces.

3. Coalition warfare will remain central to U.S. national military strategy.

4. The Army will maintain sufficient forward deployed forces to meet national commitments and maintain the credibility of our deterrent strategy.

5. The Army will maintain sufficient ready and flexible contingency forces.

6. The Army will maintain reinforcing forces—active and reserve—capable of rapid, full mobilization.

7. The Army will continue to provide a broad array of military service to the nation to meet a range of requirements from peacetime threats to general war. These include civil works, disaster relief, environmental clean-up, nation building, and security assistance.

8. The future global environment will be characterized in multipolar terms.

These assumptions, though general in nature, describe the fundamental characteristics of the planned Army fairly well. It will be the nation's primary land force, nuclear capable, fighting as part of a coalition, with three elements (forward deployed forces, reinforcing forces, and contingency forces), able to accomplish a range of missions in a multipolar world. The assumptions meet the criteria for elements of the core environment: they are unlikely to change and they are relevant to planning.

These assumptions turn generally inward on how the Army itself will look rather than on the external environment. Of the eight, five relate primarily to Army interests or goals but are stated in terms of assumptions. Three relate primarily to the expected environment: nuclear capability will continue as a building block of defense policy, coalition warfare will remain central to U.S. national military strategy, and the future global environment will be characterized in multipolar terms.

Consistent with the historical failure to consider real world fiscal constraints, there is no assumption about resource levels or force sizing. Because future resource levels carry with them substantial uncertainty, particularly as far in the future as 30 years, any discussion of them might better fit in the section that deals with variables rather than in the section on assumptions. Nevertheless, an estimated reasonable *range* of resource levels might serve as a useful assumption for planners. Regardless of the accuracy of such projections, simply understanding how different future resource levels might be, and understanding how different personnel policies might need to be across that range, will stimulate discussion within the Army about the sorts of armies various resource levels might imply. Further, such analysis might prove other planning assumptions invalid. For example, at certain lower resource levels the Army might need to rethink its triad of forward deployed, reinforcing, and contingency forces.

Further, the ALRPG lists no assumptions about technology, demographics, or the economy. All these factors are uncertain to some degree, but it is worth trying to understand what, if anything, can be forecast about them. If, indeed, their future is so murky as to be unpredictable, then that determination in itself becomes a useful assumption.

For the most part, however, there is little reason to take exception to the ALRPG's assumptions. They could be more complete and include more external factors, but they represent a satisfactory starting point.

Planning Assumptions in the Personnel Plan

The Personnel Plan contains six planning assumptions, as follows:

1. The military forces of the United States will continue to deter any major conflict between the superpowers.

2. The Army will continue to be manned by volunteers.

3. The Army will maintain sufficient active and reserve forward deployed forces, contingency forces, and reinforcing forces to meet national commitments and maintain a credible deterrent strategy.

4. The Army will maintain reinforcing forces—active and reserve—capable of rapid, full mobilization.

5. The Army will continue to provide a broad array of military services to the nation to meet the range of requirements from peacetime threats to general war. These will include civil works,

disaster relief, environmental clean-up, nation building, security assistance, and drug interdiction.

6. The Army will maintain a civilian work force sufficient to manage and operate the sustaining base and support the force.

Only three of these planning assumptions (the first, second, and last) differ from those in the ALRPG. The first assumes that U.S. forces will deter major conflict between the superpowers. It seems odd that the personnel plan contains this assumption because it is not one of or even derived from one of the assumptions in the ALRPG. The other two differing assumptions offer additional information upon which to base personnel planning.

Independent Variables

Both the ALRPG and the Personnel Plan describe independent variables, those external and unpredictable events beyond the Army's control and influence, that may significantly influence the Army's ability to meet its long-range objectives—objectives which, incidentally, remain unstated in the ALRPG except as might be inferred from the assumptions discussed above. See Table A.2. At first inspection, the independent variables appear consistent with the alternative environments of the planning model. The ALRPG states that its methodology assesses a wide range of possible alternative future scenarios and suggests a range of outcomes. A closer look, however, reveals that each "variable" is in fact described as a point estimate. No ranges are specified. Instead, the guidance describes, in quite general terms, only one outcome—probably the one viewed as most likely—for each dimension along which variation is possible.

The latest version of the ALRPG deals with four independent variables: Soviet reform, regional developments, the pace of technological

Table A.2

Independent Variables

ALRPG	Personnel Plan
Soviet reform	Soviet reform
Regional developments	Regional developments
Pace of technological change	Technological change
Growing economic interdependence	

change, and growing economic interdependence. The Personnel Plan contains no additional information over that contained in the ALRPG; it simply paraphrases and summarizes the ALRPG. Economic interdependence, listed as an independent variable in the ALRPG, is included as a trend in the Personnel Plan.

The ALRPG devotes three paragraphs to Soviet reform, stating Soviet goals, noting that the outcome of the ongoing reform is uncertain, and opining that although it is unlikely that the Soviet economy will grow to equal Western or Pacific Rim countries, that economy may become more capable of supporting a stronger and more technologically developed military. The likely outcomes of Soviet reform are described in such a general manner as to be of limited value to planners. There is no discussion of the range of possible outcomes of Soviet reform, only that the outcome is uncertain. The document does not attempt to explore what the United States might do to influence that outcome. Admittedly, such shaping strategies lie outside the bounds of the Army's policy sphere to design or implement. Nevertheless, it would be useful to Army planners and decisionmakers to consider what range of shaping strategies the U.S. government as a whole might employ and what implications such policies might have for the Army.

The only stated implication of Soviet reform as it might relate to policy options is the following sentence:[7]

> The Army will have to weigh carefully any potential changes to stationing of forces, deployment concepts, weapons, or warfighting doctrine and tactics that may have an adverse impact on alliance cohesion and U.S. ability to deter aggression.

There is no discussion of how, when, or in what forum such decisions are likely to be made or of what considerations might inform the debate. Again, the guidance offers general statements and omits discussion of the range of possible outcomes. As a result, no range of policy options or hedging strategies can be developed.

With regard to regional developments, the ALRPG notes that,

> As the security environment evolves, assessments of the threats to our national interests will result in modification of our national security policy.

The guidance goes on to highlight the uncertainty about the future roles of NATO and the Warsaw Pact; a possibly declining requirement for forward-deployed forces in Asia; the requirement to democratize

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[7]ALRPG, p. 9.

and revive economic growth in Latin America; and potential instability in the Middle East, South Asia, and Africa. Again, the document offers general forecasts without describing uncertainty or how to deal with it.

The pace of technological change is discussed in one paragraph in the ALRPG. The text warns against the dangers of technology transfer and cautions that technological unknowns may alter the global military balance. The guidance states as a consequence that the Army will need to maintain stable funding to permit a robust technology base, continued acquisition, and an adequate industrial base capacity. Again, there are general statements with no discussion of the possible range of outcomes or the strategies to shape or hedge against the attendant uncertainties.

The discussion of the final independent variable, growing economic interdependence, mentions the increased reliance of the United States on foreign raw materials and energy sources as well as the threatened regional stability and financial stability resulting from Third World debt. Again, no range of outcomes or accompanying hedging or shaping strategies are mentioned.

Trends

There are only two meaningful differences between the trends in the Personnel Plan and the ALRPG (see Table A.3). First, the demographic trends in the ALRPG are broken out in the Personnel Plan, as might be expected given their relative importance. Second, and the really notable difference, is the lack of any discussion of fiscal environment trends in the Personnel Plan as compared to the ALRPG. Given the importance of fiscal constraints, particularly in the time frame, it would be expected that fiscal matters might be a top priority in strategic planning for personnel matters, which are large consumers of budget dollars and often the subject of budget-cutting efforts. To develop strategic personnel policies and guidance for subordinate commands in determining program and budget submissions without explicit consideration of resource constraints risks severe disconnects in the overall process. Subject constraints need to be considered, and strategic planning needs to be linked to resource planning and programming.

Table A.3

Trends

ALRPG	Personnel Plan
International trends	International trends
U.S.–Soviet relations	U.S.–Soviet relations
Proliferation of force worldwide	Increased militarization
Spread of terrorism	Low-intensity conflicts
Proliferation of NBC weapons	Militarization of space
Militarism of space	Economic interdependence
Domestic trends	Domestic trends
Emerging technology	Youth population
Demographics	Minority population
Environmental impacts	Women in the work force
Installations and facilities	Aging work force
Fiscal environment	Marital content
	Single parents
	Quality of life
	Combat experience
	Technology

Implications

In this step, the ALRPG's stated methodology departs from its actual content. The ALRPG states that it draws together assumptions, independent variables, and trends and, "translates them into a range of options." In fact, neither the ALRPG nor the Personnel Plan presents such a range of options. In general, the implications associated with each variable are drawn from the rather general point estimates for each of the variables and translated into conclusions stated as if no uncertainty existed. See Table A.4.

Table A.4

Implications

ALRPG	Personnel Plan
Army roles and missions	Army roles and missions
Doctrine	Doctrine
Force structure	Force structure
Modernization & emerging technology	Modernization & emerging technology
Training, readiness, & leadership	Training, readiness, & leadership
Development	Development
Quality people	Quality people
Supporting the force	Supporting the force
Planning & programming	

Goals

Only *The Army Long-Range Personnel Plan* provides an explicit statement of goals, stated in five areas: recruitment, personnel management, leader development, retention, and integration of personnel systems and technology. Goals for the Army can be inferred from the planning assumptions in the ALRPG as discussed above.

Guidance

Both documents contain a guidance section. The ALRPG provides guidance in each of the implications areas. The Personnel Plan provides guidance in the same five areas with explicit goal statements.

COMPARISON OF ARMY AND PRIVATE INDUSTRY PROCESSES

Comparing the Army's long-range planning process with the more complex strategic planning model discussed in Sec. 3 elicits some interesting results. First, at an initial look, the two processes appear to have much in common. Both compare the future environment (planning assumptions, independent variables, and trends in the case of the Army) with a set of interests (goals) and derive a set of actions intended to achieve the goals (planning guidance). The two also differ in a number of respects.

First, the goals in the Personnel Plan, while defined, are not prioritized. One goal is stated as, "Recruit a sufficient number of quality personnel to meet the military and civilian requirements of the Total Army." It would seem possible that there might not be adequate funds to recruit a sufficient number of personnel to meet all force requirements with the desired quality of personnel. If not, what then?

Second, the ALRPG and Personnel Plan state all trends and projections in terms of absolute point estimates as if they were known with certainty. The ALRPG is somewhat more helpful in this regard and discusses future uncertainty in each case, but then settles on a single estimate for use in planning without reviewing how that estimate was calculated or the potential effect if the estimate is wrong. For example, the ALRPG states:[8]

> Pressure will be great to freeze, cut or keep defense spending to modest growth levels throughout the planning period. The Army faces an

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[8]ALRPG, p. 8.

increasingly complex security environment dictating expanded missions with fewer resources.

The document offers no explanation as to how the range of outcomes in the first statement (freeze, cut, or grow) may lead to the second (fewer), nor does the ALRPG discuss the possible effect of the alternatives.

The Personnel Plan neither considers uncertainty nor develops strategies or policies to deal with it. The Personnel Plan also does not consider how the Army may be able to influence some of the environmental factors to the benefit of the Army and the personnel community. As a result, no shaping strategies or policies are given for attempting to guide future events.

Finally, the Personnel Plan results in guidance that does not define a course of action and does not reflect explicit decisions about how the Army will attain its goals. For example, one item states:[9]

> Studies of the Korean and Vietnam Wars indicate the Army tour-of-duty policy was a major problem in both conflicts. We still do not have a stated tour-of-duty policy for soldiers involved in Low-Intensity Conflict (LIC).

It is difficult to see how this guidance would be implemented or even what the desired outcome might be.

The ALRPG and the Personnel Plan discuss trends and projections and how the Army must adapt itself to them, but they do not discuss alternative means of achieving such adaptations. For example, the ALRPG throughout sets forth policies that may have resulted from the sort of option evaluation the document promises, but it offers neither that evaluation nor the alternative policies that might have been considered.

The following passage reflects the general tone of the ALRPG guidance that deals with implications and options:[10]

> Army forces are essential to national deterrent strategy. Today, the Active Army stands at its lowest strength since 1950, and there is a near balance between AC and RC size. Comprising 52 percent of the combat power and 67 percent of combat service support, we are close to the limit of requirements we can reliably place on the Reserve Components. Further increases in RC mission responsibilities will exacerbate RC abilities to adequately maintain manpower levels. We must take steps

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[9] *The Army Long-Range Personnel Plan*, p. 9.
[10] ALRPG, p. 9.

to avoid a situation in which Army forces lack the quality, quantity and sustainment to serve as a credible deterrent to adventurism, coercion, or aggression.

There is nothing open here for analysis or decision. If anything, the discussion discounts the possibility that the Army has any options on this subject. There is no issue to be debated, no options to be explored. Throughout, the document lays out planning policy in a fairly dogmatic fashion without its promised analysis of options other than those selected.

POSSIBLE REASONS FOR LACK OF PLANNING ALTERNATIVES

It may be that alternative environments were considered earlier in the process and the ALRPG and the Personnel Plan show only the results of earlier decisions. The documents do not suggest that is the case. In fact, in informal discussions, Army staff officers say they feel the Army leadership wishes not to deal with uncertain outcomes by laying out alternatives. Yet, it is identification of issues and alternatives that the Army needs to inform its long-range planning. The lack of such analysis renders planning documents less useful to decision-makers than they might otherwise be. Perhaps as a result, the documents seem to generate little interest from the Army Staff.

Much of this reluctance to examine ranges of futures may be explained by the competitive nature of resource allocation within the government. The resource allocation process has adversarial qualities at all levels: within the Army as the various proponents compete for scarce Army resources, within the Department of Defense as the Military Departments compete, within the Executive Branch, and, finally, in the Congress. The Army leadership may consider it bureaucratically risky to study unpalatable options such as substantially smaller-than-anticipated force structures or national service. The adversarial nature of the resource allocation process leads the services to stake out absolute and well-buttressed positions, perhaps hoping that the process will result in a palatable but unexamined middle ground of compromise. The Army may be reluctant to consider less extreme or alternative positions because such plans might leak to competing organizations and weaken its hand. Nevertheless, the volatile nature of international events and domestic priorities make such environments plausible, and options should be studied in advance.

The Army may wish to limit discussion of alternative planning assumptions in its planning documents to ensure clarity and unity of purpose within the Army Staff and among the subordinate commands. The Army leadership may simply be concerned that laying out ranges of outcomes of uncertain world events and ranges of resulting force structures might confuse its staff and lead subordinate commands to inconsistent planning assumptions.

Such considerations, even if valid, do not dictate that the Army avoid alternative planning scenarios. If there is concern that bureaucratic competitors might use such information to the Army's detriment, internal access to such information could be limited to those who have a need to know. If there is concern that such planning may confuse the staff or subordinate commands, then the answer may be to educate key personnel in the philosophy of core, environment-shaping, and hedging strategies. In any event, a more effective means is needed to consider alternatives under conditions of uncertainty if future long-range planning documents are to become more useful and relevant for policy decisionmaking.

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